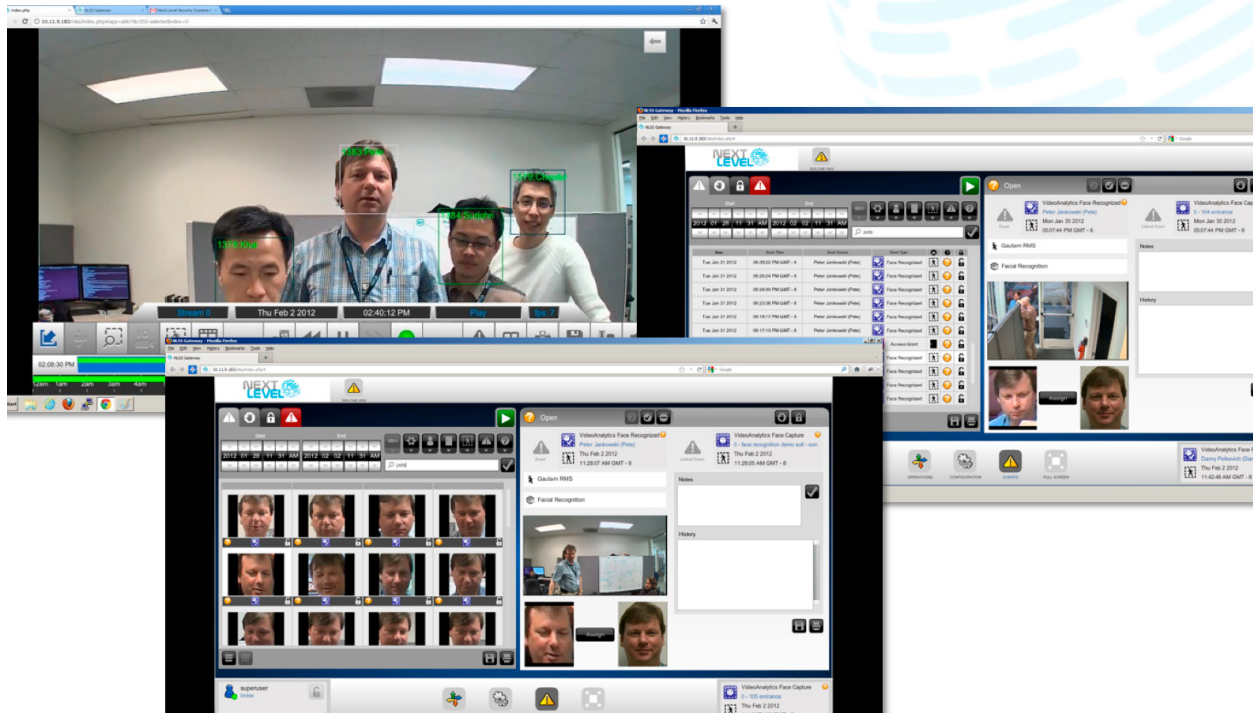


Facial Recognition NextDetect™, a facial recognition analytic, is available as an add-on feature on the NLSS Gateway 3.0. With this unique software, users can create or upload an image database to be searched against across multiple cameras for potential matches. When a match between a captured face and an image in the database is detected, an email or mobile alert can be sent to the user-defined contact via email or text

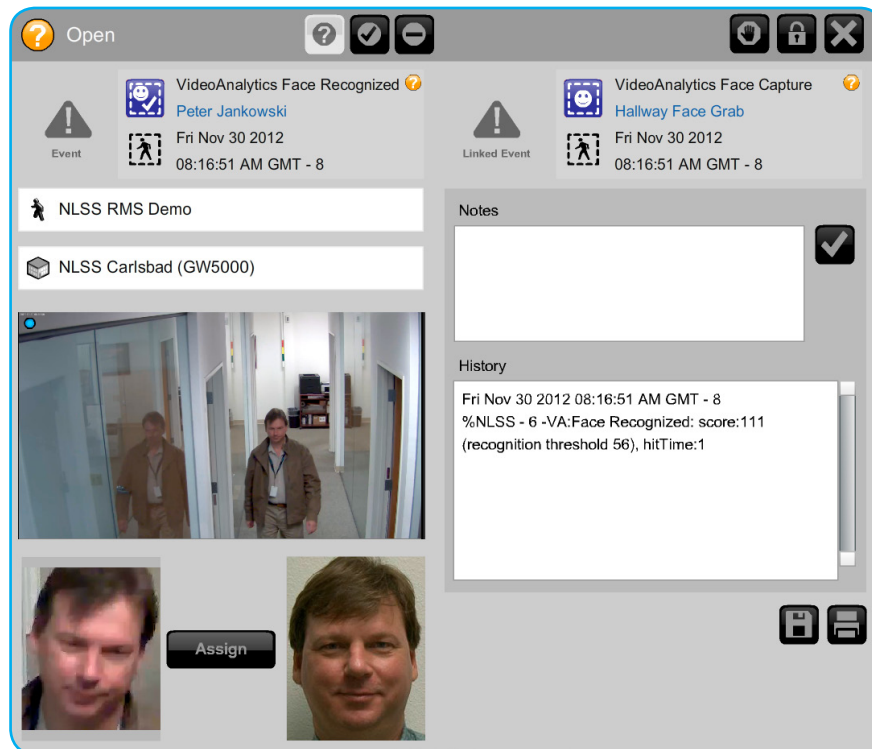


Crowd Detection - Additional Analytic in NLSS System not required in RFP

The Crowd Detection analytic allows the user to select a region or area and assign a 'number of people' threshold limit. A system Event is triggered if the threshold is reached

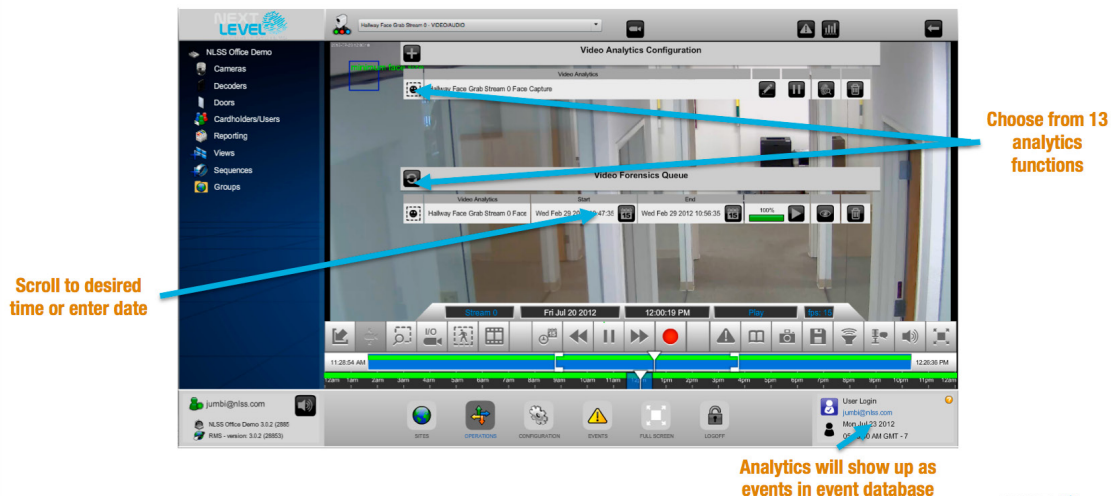


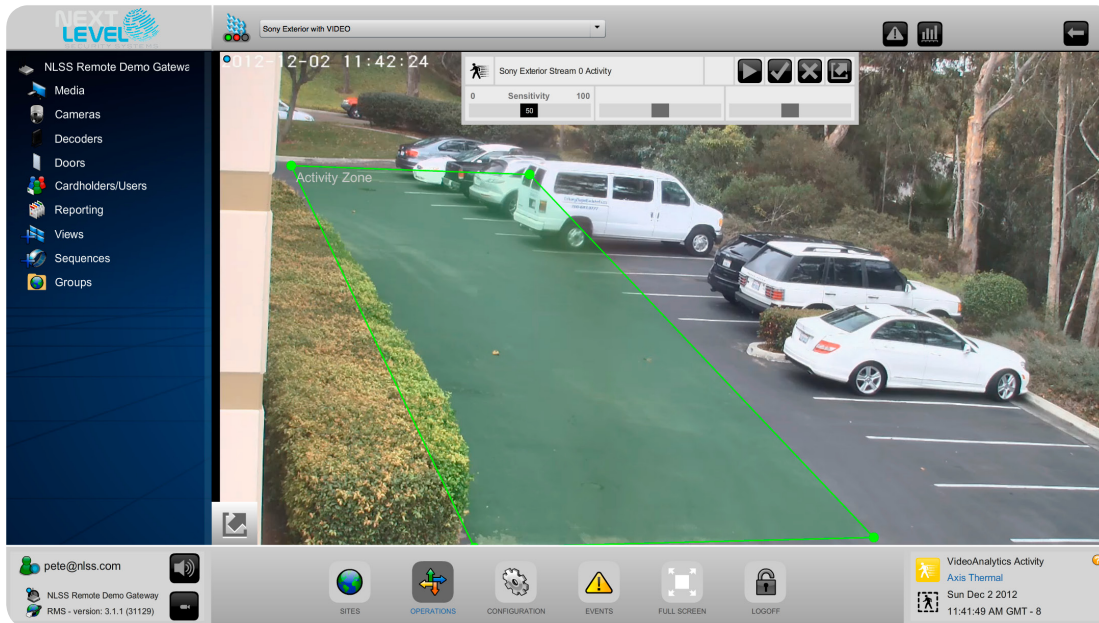
- b. The video analytics behaviors will generate events that can be automatically displayed and logged by the system, and associated with the recorded pre-triggered video.



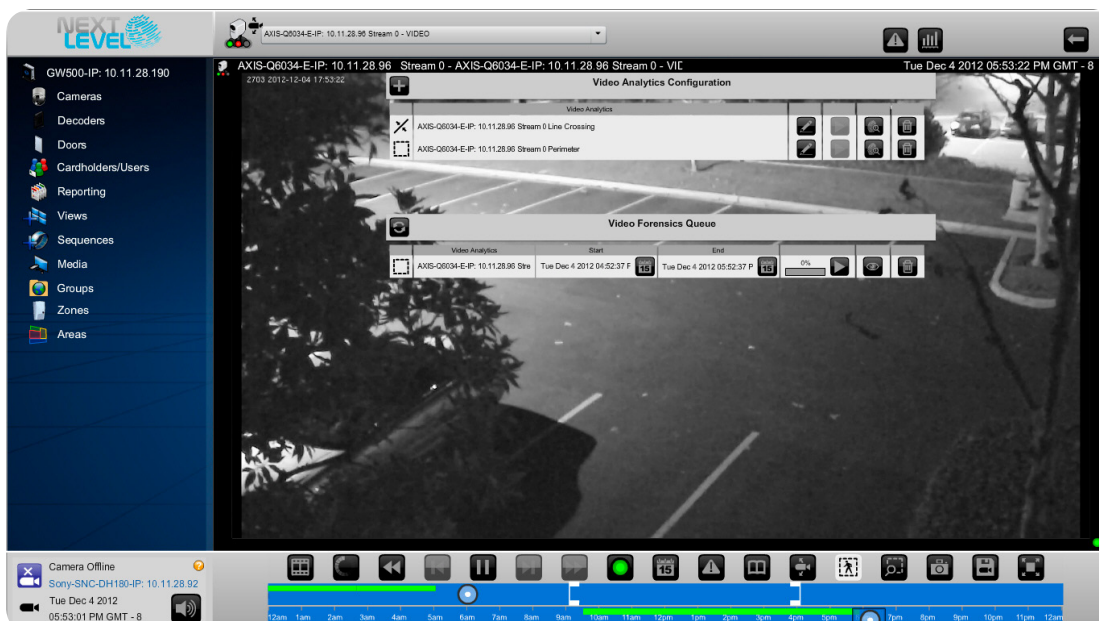
- c. **Forensic Analytics:** Forensic Analytics allow users to select recorded video that may or may not have had analytics running on it and then select a timeframe and a type of analytic. This allows users to go back in time and apply analytics to video that did not have analytics running on it.

- ❖ Play any analytic on any archived video stream for faster search results
- ❖ Forensic events are automatically added to event log





Forensic Analytics Setup

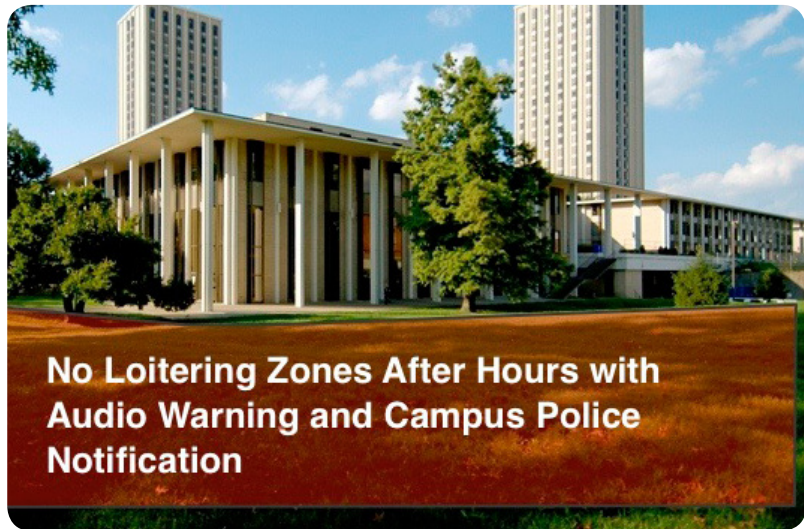


Multiple forensics can be run simultaneously



Audio Analytics - Audio Based Notifications on Video Analytics or Events

- ❖ The Gateway has a number of pre-recorded audio files that can be played on events
- ❖ Customized audio files in MP3 or WAV format can also be loaded on to the Gateway
- ❖ Any video analytic event can be used to set up an audible alarm on the Client or through the audio on IP cameras
- ❖ When a person has exceeded the loitering time limit a Pre Recorded message can be automatically played to inform the individual that they are loitering in an area off limits and that security is watching them and they need to leave immediately
- ❖ Loitering, Perimeter and Activity Analytic can be used predetermined schedules such as 10:00pm to 6:00am. This insures that the audio notifications are directed to individuals in areas off limits during certain hours.
- ❖ Areas around Dorms or Student Housing during late hours can be automatically monitored.
- ❖ Potential Criminal Offenders can be scares off with the audio notifications and with automatic lighting
- ❖ Campus Police can also speak directly through the system if



License Plate Recognition (LPR) The NLSS License Plate Recognition Analytic is able to perform the following:

- ❖ Locating and extracting license plates from moving and parked vehicles from digital video streams in real time:
- ❖ High yield recognition with extremely low error rate, suitable for fully automated law enforcement or video tolling.
- ❖ Count total number of license plates in the field of view with a minimal pixel resolution of each license plate.
- ❖ Recognize the license plate numbers/characters from captured plates minimal pixel resolution of each license plate that is in focus and not obstructed.
- ❖ Ability to learn different style of license plates by the type of fonts, colors, language type and size. (This can be improved over time with manual correction of the actual number)



Camera used for License Plate Recognition

- ❖ Displays capture results in real time UI o Full text plate search with wildcards o Trigger system events on LPR match
- ❖ Full color capture for forensic detail (if support by the IP Camera)
- ❖ NLSS LPR Analytic Software performs following:
- ❖ Ability to train the software by correcting mistakes that are reviewed manually by an individual. As these corrections are made the system should utilize them to improve accuracy of the results
- ❖ Ability to set a confidence level from 0 to 100 on the returned results of the recognized letters. If most of the numbers are recognized well, the unrecognized or low confidence letters should be replaced with an asterisk. For example, a license plate that reads FGW 827 should return FGW 8*7 from the LPR engine where the license plate characters were set at a value of 80% confidence and the letters FGE87 met that level but the number 2 was below the confidence level.
- ❖ Available recognition results include: locations with possible license plates, exact locations of recognized license plates, the exact locations of characters on the license plate, the recognized



registration characters and state/country, confidence levels for the overall recognition result, and confidence levels for each individual character.

- ❖ Ability to capture numerous still images from a video stream of the same license plate and build a correct or high confidence level on the characters across the multiple pictures of the same license plate.
- ❖ Ability to capture multiple license plates from the same video stream as long as they meet the minimum resolutions requirements
- ❖ Ability to categorize the types of license plates such as from different states, countries, formats (i.e. commercial, emergency, motorcycle & etc.)
- ❖ Maximum number of characters: Set the maximum number of characters allowed on the license plate to activate the recognition process. If the number of characters exceeds the limit, the system will not start the recognition.
- ❖ Minimum number of characters: Set the minimum number of characters allowed on the license plate to activate the recognition process. If the number of characters does not reach the minimum requirement, the system will not start the recognition.
- ❖ Maximum height of characters in pixels: You can set the maximum height of characters on the license plate in pixels to activate the recognition process.
- ❖ Minimum height of characters: Set the minimum height of characters on the license plate in pixels to activate the recognition process.
- ❖ Maximum number of plates: Set the maximum number of plates to be recognized simultaneously in any Field of View (FOV).
- ❖ Enable two row plates: This option can recognize two rows of characters on license plates.
- ❖ Maximum angle of slope: Set the maximum tilt angle to be allowed to activate the recognition process.
- ❖ Slant Detection Enable: The license plate tilting in a vertical direction can be detected.
- ❖ Minimum angle of slant: Set the minimum tilt angle to be allowed to activate the recognition process.
- ❖ Maximum angle of slant: Set the maximum tilt angle to be allowed to activate the recognition process.
- ❖ Ability to have an Alphabet Filter to get out extraneous alphabetical characters around the license plate and increase recognition accuracy.
- ❖ The following options can be enabled to avoid misidentification of certain characters in some countries.
- ❖ I to 1 Enable: Always identify the character “I” as “1” (one).
- ❖ 1 to I Enable: Always identify the character “1” as “I” (letter I).
- ❖ 0 to O Enable: Always identify the character “0” as “O” (letter O)
- ❖ Ability to set rules for characters that look the same such as 0 to O: Always identify the number “0” as letter “O” or the letter B as the number 8
- ❖ Approaching Zone(s):
- ❖ Ability to set up single or multiple zones for license plate capture.

